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energizable

CLAIMS

1. A visual information system for use in connection with a carrier for carrying observers along a predetermined path, the system comprising an array to be located adjacent said path and consisting of a plurality of individually and selectively ~~energizable~~ light sources arranged in rows and columns, a memory for storing a program representative of a predetermined image, a controller actuatable to control the selection and sequence of ~~energisation~~ of the light sources within a predetermined time span corresponding to ^{persistent} [the persistence] time of ^a the human retina to light, and in accordance with the predetermined program stored in the memory, ^a [the] rate of operation of the controller being set to correspond with ^a [the] speed of the carrier past the array whereby an observer carried by the carrier past the array will observe said predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array.
2. A system according to Claim 1, including sensing means for monitoring [the] passage of a carrier carrying said ^{observer} viewer past the array to actuate said controller.
3. A system according to Claim 2, wherein said sensing means comprises infrared sensing means arranged to activate said controller upon [the] approach of said carrier to the array and to deactivate the controller upon [the] departure of said carrier away from said array.
4. A system according to Claim 3, wherein the sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared receiver and transmitter pair located downstream of the array.
5. A system according to any preceding claim, wherein the controller is arranged to cyclically repeat the ~~energisations~~ specified by the predetermined program

energizations

such that

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at regular intervals.

6. A system according to claim 1, wherein the array consists of light sources of different colours and wherein the predetermined program specifies different durations of energization of the different coloured light sources.

7. A system according to claim 1, wherein said controller is arranged to complete one cycle of the predetermined program within a period of 0.015 seconds.

8. A system according to claim 1, wherein the ratio of rows to columns in the array is 16:1 or greater.

9. A system according to Claim 1, wherein each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary the energized period for which its corresponding diode is energised in accordance with the program stored in the memory.

10. An arrangement comprising a plurality of systems each according to claim 1 and a main computer arranged to store a plurality of different programs, each program representing a respective image, said main computer being operable to replace the program stored in said memories with a program stored in said main computer.

11. An arrangement according to Claim 10, wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.

12. An arrangement according to Claim 10 or Claim 11, wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with the location of their associated arrays.

13. A transport system, a path along which carriers can pass and a visual display system located adjacent said path, the display system comprising a fibre

having

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optic array in which one end of a bundle of optical [fibres] is arranged so that [the] ends of the individual [fibres] at one end of the bundle form a vertically elongate array of rows and columns and [the] ends of the individual [fibres] at the opposite end of the bundle are connected to an

electro-optical interface unit, control means for supplying electrical signals to the interface unit to cause the array to display a succession of images and means for controlling the rate at which the control means

supplies said signals in accordance with [the] ^a speed of the carrier past the system, and within a time frame related to [the] ^a persistence time of [the] ^a human retina to light, whereby an observer on the carrier will perceive

apparently simultaneously a single horizontally elongate display consisting of said successive images located side by side.

14. ^{transport} A system according to Claim 13, wherein the control means includes a remote computer for generating data representative of a desired display, a local data interface for receiving the data, and a processor for processing the received data and storing it in a memory, the processor being arranged to control the interface unit to respond to the data stored in the memory.

15. ^{transport} A [display] system according to Claim 14, wherein the carrier is a train, the path is defined by a train tunnel, and the array is mounted on [the] ^a wall of the train tunnel and further comprising an on-board transmitter on a passing train to transmit [the] ^a data to the computer to supply the interface unit with said data.

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